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ABSTRACT

This study manipulates the variables of children's ethnicity, sex, and ability to ascertain the nature of the interaction relationship between teacher expectancies and student performance. The subjects were urban teachers who were asked to read case histories and then rate the child on a Likert-type family and pupil behavior rating form and a modified Osgood semantic differential scale. In addition, each subject completed a revised F scale of 30 items to assess each subjects' degree of prejudice. Analysis of the ratings given by the 386 teachers confirms the premise that the interactions between teachers' expectancies and students' performance is more complex than originally expected; the variables of ability, sex, ethnicity and prejudice of teachers were found to be of importance in understanding these interactions. It is further concluded that the global ratings of the Osgood semantic differential scale are more powerful in recording the differential ratings of the teachers than are the particular judgments of the family and pupil behavior rating form. The third conclusion is that low ability students are the particular group of students who are "victimized" by the ratings of the high prejudice teachers. These findings suggest the need for administrators to be aware of their staff's prejudices, particularly as they interact with low ability students of minority status. They also suggest the need for retraining of teachers who are prejudicial or the assignment of them to schools where they do not come into contact with low ability minority students. (Author/AM)

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EFFECTS OF TEACHER EXPECTANCIES: MYTH OR REALITY?

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PROBLEM:

The interconnection between students' performance, ethnicity and teacher expectancies have received increasing attention in education and sociopsychological literature during the past decade. Rosenthal and Jacobsen (68) reported positive significant changes in the reported IQ's of first and second grade students due to the teacher expecting "special pupils" to "bloom intellectually". These findings led them to apply the concept of self-fulfilling prophecy to educational settings.

Supporting evidence for the ideas advanced by Rosenthal and Jacobsen were provided by the work of Brophy and Good (70), Rist (70) and Korman (71). Brophy and Good reported that teachers were more likely to accept poor performance from students for whom they had low expectations and were less likely to praise good performance from those students when it occurred. Based on observations, Rist reported that a kindergarten teacher behaved differently with children depending upon their being classified as fast or slow learners; interactions between the teacher and slow learners reinforced the children's negative self-concept. Based on five studies, Korman (71) reported a positive relationship between the expectancies of peers and organizational leadership and subjects' performance.

At the same time, there have appeared reports of findings which failed to replicate the work of Rosenthal and Jacobsen. Clairborn (69) reported that testing two months later showed no relative gains for pupils who were the object of the expectancy bias. Flemming and Anttonen (71), reported that there was no significant gains for children who had inflated IQ scores as compared with those children not so treated.

The contradictory findings may in part be due to the possibility that the relationship between teacher expectancies and students performance is more complex than originally anticipated. Datta, et.al., (68) found that there was no difference by teachers in ratings of Black high IQ students as compared to other high IQ students but that Black low IQ students were more likely than the other low IQ children to be described as verbally aggressive, maladjusted, and low in task orientation. Kester and Letchworth (72) reported that there were no differences between teacher expectancies and students' performance or attitudes but that teachers did spend significantly more time communicating positively with bright students than with "average students". Coates (72) reported that white male adults were more negative in training black male children on a discrimination problem than with white male children whereas there was a nonsignificant difference between the two races for females.

The findings of these three studies support the notion that interactional effects may explain the relationship between teacher expectancies and students' performance. They also suggest that the key variables to focus upon are the children's ethnicity, sex and ability. The purpose of this study was to manipulate all three variables to ascertain the nature of the interaction relationship between teacher expectancies and student performance.

DESIGN:

Two forms of a simulated cumulative record were developed; one for a high ability child and one for a low ability child. A low

ability child was a 10 year old who had a Lorge Thorndike IQ of 85, an average grade equivalent in math and reading achievement of 3.5, and teachers' comments specifying that the student was not paying attention nor working up to potential. The cumulative record for the high ability child was exactly identical to that of the low ability child except for reported IQ (115), achievement level (4.5) and teacher comments (generally positive). [illegible] teacher comments and other information for the simulated forms were selected from a cross-section of present records of pupils in a large city school system. Ethnicity was manipulated by means of fictional names and actual photos selected from the system by a committee of teachers. Moreover, the sex of the child for each ethnic group was also randomly altered.

SUBJECTS

The subjects for this study were urban teachers in evening courses at a University of Connecticut, and suburban teachers on the staff of an adjacent school system. There were 386 subjects; 27 percent of them were males and 73 percent were females. The mean age was 30.7 years with an average of 5.7 years of experience in teaching.

PROCEDURES

The study was conducted during the fall semester of 1972. Experimenters tested the subjects in groups and they were told that we were studying how teachers use cumulative records in diagnosing pupil behavior. They were also told that the child's name had been altered to protect his/her identity.

The subjects were asked to read the case history and then rate the child on a nine-item Likert-type family and pupil behavior rating form, and an 18 item modification of the Osgood (57)semantic differential(selected objective pairs in the evaluative, activity and potency dimensions with a seven point scale). The family portion of the behavior rating form assessed the parents interest in education, while the latter assessed the child's leadership ability and peer reltionship. Postive and negative answers were randomly altered to correct for the tendency of a subjects' response set. A rating of the child's marks at the end of the past school year was also included. In addition factual data about the subjects were collected and the subjects completed a revised F scale(69)consisting of 30 items to assess each subjects' degree of prejudice.

STATISTICAL ANALYSIS

The high and low ability student groups were analyzed separately because of expected extreme differences between the results and variables tended to cause corresponding interactions with ethnicity and sex to be depressed. Thus, 2x3 analysis of variance procedures were employed to test the corresponding null hypotheses of no differences for sex and ethnicity for all dependent variables at the .05 level of significance for the low ability students and then for the high ability students.

The data collected concerning the teachers were also compared to the ratings they made. Pearson and point biserial correlations were used discriminately to determine the degree of the relationships.

Finally, the teachers were partitioned with respect to their scores on the F scale. Analysis of variance procedures were then used to examine differences at the .05 level of significance in ratings of the upper and lower thirds of the teachers based upon their prejudice indicies.

RESULTS

The individual cell means for the low ability students and the high ability students are presented in Tables I and II respectively. Cell size was relatively uniform ranging from 28 to 35. As may be seen by viewing these tables, the high ability students were rated higher than the low ability students on the family and pupil behavior rating form. Subsequent ANOVA procedures found these differences to be significant beyond the .001 level.

TABLE I

MEANS FOR LOW ABILITY STUDENTS
N=194

	Black		White		Puerto Rican	
	1	2	1	2	1	2
	Female	Male	Female	Male	Female	Male
Family Behavior	12.7	13.2	12.4	12.6	11.4	12.4
Student Behavior	11.9	11.6	11.3	10.7	11.5	10.4
3. Grades	13.2	12.6	12.8	12.2	12.2	12.1
4. Osgood E	23.9	23.0	22.0	22.4	22.8	20.7
5. Csgood A	19.2	19.1	18.2	19.5	18.7	19.5
6. Osgood P	23.9	24.0	24.8	23.5	24.9	25.9

TABLE II

MEANS FOR HIGH ABILITY STUDENTS
N=192

	BLACK		WHITE		PUERTO RICAN	
	1	2	1	2	1	2
	Female	Male	Female	Male	Female	Male
Family Behavior	17.5	16.9	18.3	17.5	18.7	18.3
Student Behavior	22.5	22.4	21.8	21.9	22.8	23.0
3. Grades	21.8	21.6	22.3	22.4	22.7	22.0
4. Osgood 1 E	41.0	37.8	39.3	37.5	40.0	40.0
5. Osgood 2 A	25.1	23.6	24.3	23.9	24.7	24.8
6. Osgood 3 P	23.3	23.6	24.6	22.5	23.7	26.0

Thus the parents of the high ability children were rated as significantly more interested in education than the parents of low ability students. The high ability students were rated as having significantly higher leadership ability, better peer relationships and better grades than the low ability students.

On the Osgood scale, the high ability students were rated significantly ($p < .001$) higher than the low ability students on the evaluative and activity dimensions. Significant differences were not realized for the potency dimension.

The F-ratios emanating from the two-way ANOVA's (sex, ethnicity) for the six dependent variables are presented in Tables III and IV. As Table III reveals the main effects and their interactions were not significant for the low ability students.

TABLE III

F-RATIOS FOR LOW ABILITY STUDENTS

N=194

DEPENDENT VARIABLES	INDEPENDENT VARIABLES		
	Ethnicity	Sex	Interaction
1. Family Behavior	1.16	.87	.20
2. Student behavior	1.06	1.39	.20
3. Grades	1.02	1.14	.14
4. Osgood 1 E	1.57	1.03	.62
5. Osgood 2 A	.08	1.01	.38
6. Osgood 3 P	1.58	.02	.81

For the high ability students, three significant conditions were identified as given in Table IV.

TABLE IV

F-RATIOS FOR HIGH ABILITY STUDENTS

N=192

DEPENDENT VARIABLES	INDEPENDENT VARIABLES		
	Ethnicity	Sex	Interaction
1. Family Behavior	1.54	1.07	.08
2. Student Behavior	3.15*	.00	.07
3 Grades	1.54	.35	.35
4. Osgood E	1.40	4.42*	1.10
5. Osgood A	.45	1.03	.65
6. Osgood P	1.75	.05	3.67*

* $P < .05$

Ethnicity was found to be a significant ($P < .05$) factor for the ratings of student behavior. Interestingly, the ratings of the behavior of Puerto Rican children surpassed the ratings of the Black children and both of these groups were higher than the group of white children.

Sex was also found to be a significant main effect at the .05 level for the high ability students in the evaluative domain as measured by the Osgood scale. The females were significantly higher than the males indicating that the former were perceived as "better" than the latter.

A significant interaction between sex and ethnicity at the .05 level was found in the potency dimension. Reflecting upon the means in Table II, note that the most potent female group consisted of the white students with the Black and Puerto Rican students exhibiting lower and similar levels. For the males, however, the Puerto Rican group was considerably more potent than the Black children and the white male exhibited an even lower level of potency.

Using Pearson and point biserial correlation coefficient, the data concerning the teachers' grade level were not found to be related to the ratings of the teachers or to their scores on the F scale. The coefficients ranged from -.14 to +.08.

However, when the upper and lower thirds of the teachers on the F scale were compared, there were two significant differences. On the evaluative dimension of the Osgood Scale, the low prejudice teachers significantly rated the low ability teachers higher than did the high prejudice teachers ($F_{1, 55} = 5.35$, $P < .05$). Similar results

occurred for the activity dimensions($F_{1, 55} = 5.17$, $P < .05$).

DISCUSSION

In relation to the family and pupil behavior rating form, except for the signficant differences between high and low ability students, there was only one significant difference; that is, the Puerto Rican children were rated higher as a leader than the Black or white children. The lack of more differences for sex and ethnicity or the interaction between variables on the family and pupil behavior rating form may be the result of several factors. The judgments the teachers were asked to make were of a specific and particular nature leaving very little room for prejudice to operate. Moreover, the teachers may have been attuned to the real purpose of the study(the general area of racism) even though they were told that the purpose was to study how teachers use cumulative records.

The findings of significant differences on the Osgood for sex, ethnicity x sex, and prejudice of teachers x ability of students suggest that differential prejudice ratings appeared with global rather than specific judgments. This finding is in agreement with the socio-psychological literature of the effects of strong anchoring points on the judgments of raters, Asch 46, Bieri 55; that is, particular judgments result in less prejudice.

The findings of the relationship between prejudice of teachers and ability of students seems to confirm the findings of Rist (70), Datta, et.al. (68) and Brophy and Good (70). Our findings suggest that a low ability student may be more "victimized"than a high ability student

by high prejudiced teachers. Because the low ability student confirms the viability of the sterotypes for a particular ethnicity, the teachers may reinforce their children's negative self-concept.

The finding of the relationship between sex x ethnicity where black females were rated less potent than black males is consistent with the sterotype thinking that minority males are aggressive members of our society. The judgments of the teachers rating black males as more potent than black females is consistent with this perspective of perceiving male group minority members as more threatening to the establishment.

CONCLUSIONS

This study of the ratings of 386 teachers confirms the premise that the interactions between teachers' expectancies and students' performance is more complex than originally expected. The variables of ability, sex, ethnicity and prejudice of teachers must be taken into account to understand these interactions.

The second conclusion is that the global ratings of the Osgood are more powerful in recording the differential ratings of the teachers than were the particular judgments of the family and pupil behavior rating form. The third conclusion is that low ability students were the particular group of students who were "victimized" by the ratings of the high prejudice teachers.

Together, these findings suggest the need for administrators to be aware of their staff's prejudices, particularly as they interact with low ability students of a minority status. It suggests the need for retaining of teachers who are prejudical or the assignment of them to schools where they do not come into contact with low ability minority students.

Together the findings of this study suggest two areas for research. First, it raises the key question of what happens to the "average" student of a minority status. Is that kind of student treated like the low ability or high ability students? From a methodological perspective, these findings suggest the value of global ratings than a particular one. When the judgments are less anchored there is room for prejudice to operate. It further suggests that observational studies may be more effective in noting differential treatment.

In summary, the relationship between teacher expectancy and student performance is not a myth. While it is a reality, it is more complex than originally expected.

REFERENCES

1. R. Rosenthal and L. Jacobsen, Pygmalion in the Classroom, (New York: Holt, Rinehart and Winston, 1965).

2. Jere E. Brophy and Thomas L. Good, "Teachers' Communication of Differential Expectations for Children's Classroom Performance: Some Behavioral Data", Journal of Educational Psychology, Vol. 61 (1970), 365-374.

3. R. C. Rist, "Student Social Class and Teacher Expectations: The Self-Fulfilling Prophecy in Ghetto Education", Harvard Education Review, Vol. 40(1970), 411-451.

4. Abraham K. Korman, "Expectancies as Determinants of Performance", Journal of Applied Psychology, Vol. 55(1971), 218-222.

5. William L. Claiborn, "Expectancy Effects in the Classroom: A Failure to Replicate", Journal of Educational Psychology, Vol. 60 (1969), 377-383.

6. Elyse S. Fleming and Ralph G. Anttonen, "Teacher-Expectancy Effect Examined at Different Ability Level", The Journal of Special Education, Vol. 5(1971), 127-131.

7. Lois-Ellen Datta, Earl Schaefer and Malcolm Davis, "Sex and Scholastic Aptitude as Variables in Teachers' Ratings of the Adjustment and Classroom Behavior of Negro and Other Seventh Grade Students", Journal of Educational Psychology, Vol. 59 (1968), 94-101.

8. Scott W. Kester and George A. Letchworth, "Communication of Teacher Expectations and Their Effects on Achievement and Attitudes of Secondary School Students" The Journal of Educational Research, Vol. 66(1972), 51-55.

9. Brian Coates, "White Adult Behavior Toward Black and White Children" Child Development, Vol. 43(1972), 143-154.

10. Charles E. Osgood, George J. Suci and Percy H. Tannenbaum, The Measurement of Meaning(Urbana, Ill: University of Illinois Press, 1957).

11. Robert E. Lee, III and Pete B. Warr, " A Balanced F Scale", Journal of General Psychology, 1969, P. 112-115.

12. S. E. Asch, Forming Impressions of Personality", Journal of Abnormal and Social Psychology, Vol. 41(July 1946), 260-289.

13. James Bieri, et.al., "Predictive Behavior and Personality Adjustment' Journal of Consulting Psychology, Vol. 19(October 1955), 351-359.